



**CIVIL GEOTECHNICAL SERVICES**  
**ABN 26 474 013 724**  
**PO Box 678 Croydon Vic 3136**  
**Telephone: 9723 0744 Facsimile: 9723 0799**

3<sup>rd</sup> September 2024

Our Reference: 24276:NB1979

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING  
SMITHS LANE – STAGE 27 (CLYDE NORTH)**

Please find attached our Report No's 24276/R001 to 24276/R012 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density testing was performed in May 2024.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The site inspection and testing was performed by experienced geotechnicians from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the reported allotments by Winslow Constructors during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

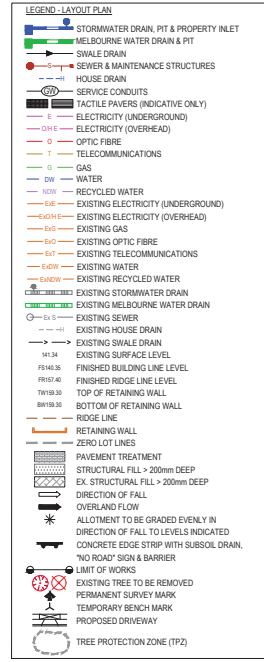
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to be 'Nick Brock', is written over a light blue circular stamp.

Nick Brock

# FIGURE 1



ROAD LAYOUT TABLE

Road Name	Reserve Width (m)	Road Width (m)			Kerb Type		Verge Width (m)	
		Lip to Lip	Inv to Inv	Back to Back	Nth/West	St/East	Nth/West	St/East
CRAIGHEND STREET	16.00	6.40	7.30	7.60	600 B2	600 B2	4.50	4.20
BAILLIESTON ROAD	16.00	6.40	7.30	7.60	600 B2	600 B2	4.50	4.20
LANARK STREET	14.50	5.10/7.20	6.00/8.10	6.30/8.40	600 B2	600 B2	4.22	4.28
DROMORE AVENUE	20.00	6.40	7.30	7.60	600 B2	600 B2	8.20	4.50
LISNAC AVENUE	16.00	6.40	7.30	7.60	600 B2	600 B2	4.20	4.50

SERVICE OFFSET TABLE

Location	Gas		ND - Water		Water		Electricity		Telecommunication		Sewer	
	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)	Side	Offset (m)
CRAIGHEND STREET	N	2.25	N	2.70	N	3.20	S	2.60	S	1.85	N/S	Ext 0.6x1.0
BAILLIESTON ROAD	N	2.25	N	2.70	N	3.20	S	2.60	S	1.85	N/S	Ext 0.1/0.1
LANARK STREET	E	2.00	E	2.45	E	2.95	W	1.20	W	0.85	E	1.0
DROMORE AVENUE	N	2.25	N	2.70	N	3.20	S	6.25	S	5.50	N/S	1.0/1.0
LISNAC AVENUE	E	2.25	E	2.70	E	3.20	W	2.60	W	1.85	E	1.0

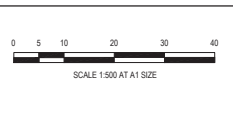
NOTE: STREET TREES ARE TO BE PLANTED IN THE CENTRE OF ALL NATURE STRIPS

**# Approximate field density test location**

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
The locations of underground services are approximate only and their exact position should be proven on site.  
No guarantee is given that all existing services are shown.  
Locate all underground services before commencement of works  
**BEFORE YOU DIG**  
www.bjyda.com.au

**FOR CONSTRUCTION**

REV	ISSUED FOR CONSTRUCTION	DATE	DRN	APP	REV	DESCRIPTION	DATE	DRN	APP
A	ISSUED FOR CONSTRUCTION	31.03.24	LM	BY					



Checked: B.PAPPALARDO 19.10.2023  
Date: M.F. LAURIGUE  
Drawn: L.M.JURRAY 19.10.2023  
Date: S.YOUNG  
Approved: P.E.0090909  
Reg. No.: 19.06.2023  
Date: P.S.16332P  
P/S Number: P.S.16332P

**BW** Beveridge Williams  
Development & Infrastructure Consultants  
1 Glenferrie Road  
Malvern VIC 3144  
ph: 03 9524 8888  
www.beveridgewilliams.com.au

Project Details  
SMITHS LANE  
STAGE 27  
CITY OF CASEY

Drawn Title  
LAYOUT PLAN  
(SHEET 1 OF 3)

Sheet 03 of 29  
Scale  
1:500 @ A1  
Project Ref: 1101438  
Stage No: 27  
Drawing No: 010  
Rev: A

K:\8363 User\1101438\110 Smiths Lane\_City of Casey (MRCVAC)\_Eng\Stage 27\Drawings\1101438-27-010-LAY.dwg



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R001  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	06/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:27
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	5	6
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.99	1.84	2.04	2.05	1.99
Field moisture content	%	17.4	22.5	21.5	19.5	20.9

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	6
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.08	1.87	2.08	2.09	1.98
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	19.5	25.0	20.0	21.5	23.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	1.5% wet	2.0% dry	2.0% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	96.0	98.5	98.5	98.5	100.5	98.5
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Material description

No 1 - 6 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R002  
 Date Issued 08/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	07/05/24
Location	CLYDE NORTH	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 10:07
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	10	11	12
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.99	2.03	2.02	1.96	1.98
Field moisture content	%	17.9	18.7	22.5	27.0	20.5

### Test procedure AS 1289.5.7.1

Test No	7	8	9	10	11	12
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.01	2.05	2.06	1.99	2.01
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	19.0	20.5	25.0	28.5	23.0

Moisture Variation From Optimum Moisture Content	1.0% dry	2.0% dry	2.0% dry	1.5% dry	2.0% dry	2.0% wet
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	<b>%</b>	<b>98.5</b>	<b>99.0</b>	<b>98.0</b>	<b>98.5</b>	<b>98.5</b>	<b>100.5</b>
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### Material description

No 7 - 12 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R003  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	08/05/24
Location	CLYDE NORTH	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 10:39
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	16	17	18	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	2.07	2.15	2.10	1.95	1.97	1.99
Field moisture content	%	17.9	20.6	18.4	23.7	22.3	26.1

Test procedure AS 1289.5.7.1

Test No	13	14	15	16	17	18	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.08	2.16	2.09	1.97	1.99	2.04
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	20.0	22.0	20.5	26.0	24.0	27.5

Moisture Variation From Optimum Moisture Content	2.0% dry	1.0% dry	2.0% dry	2.0% dry	1.5% dry	1.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	<b>%</b>	<b>99.5</b>	<b>99.5</b>	<b>100.0</b>	<b>99.0</b>	<b>99.0</b>	<b>97.0</b>
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Material description

No 13 - 18 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R004  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	09/05/24
Location	CLYDE NORTH	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 10:45
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	19	20	21	22	23	24	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	2.05	1.97	1.96	1.97	2.01	2.06
Field moisture content	%	21.6	18.4	20.7	23.8	22.2	27.6

### Test procedure AS 1289.5.7.1

Test No	19	20	21	22	23	24	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.16	2.02	1.97	2.00	2.04	2.10
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	23.0	20.5	23.0	26.5	24.0	29.5

Moisture Variation From Optimum Moisture Content	1.5% dry	2.0% dry	2.0% dry	2.5% dry	2.0% dry	1.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	%	<b>95.0</b>	<b>97.5</b>	<b>99.0</b>	<b>98.5</b>	<b>99.0</b>	<b>98.0</b>
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### Material description

No 19 - 24 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
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 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R005  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	10/05/24
Location	CLYDE NORTH	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 12:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	25	26	27	28	29	30	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	1.86	1.84	1.96	2.00	2.02	1.98
Field moisture content	%	20.1	19.8	24.0	19.3	22.2	20.7

Test procedure AS 1289.5.7.1

Test No	25	26	27	28	29	30	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	1.89	1.85	1.96	2.01	2.04	1.97
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	
Optimum Moisture Content	%	22.0	21.5	24.0	19.0	24.5	23.0

Moisture Variation From Optimum Moisture Content	1.5% dry	1.5% dry	0.0%	0.0%	2.0% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

<b>Density Ratio ( R<sub>HD</sub> )</b>	<b>%</b>	<b>98.5</b>	<b>99.0</b>	<b>99.5</b>	<b>99.5</b>	<b>99.5</b>	<b>100.0</b>
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Material description

No 25 - 30 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R006  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	13/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:07
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	31	32	33	34	35	36
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	1.87	2.06	1.95	2.11	2.05
Field moisture content	%	17.2	20.3	19.1	19.9	20.4

Test procedure AS 1289.5.7.1

Test No	31	32	33	34	35	36
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	1.93	2.09	1.95	2.12	2.07
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	18.0	21.0	21.5	22.5	22.0

Moisture Variation From Optimum Moisture Content	0.5% dry	0.5% dry	2.0% dry	2.0% dry	2.0% dry	1.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	96.5	99.0	100.0	99.5	99.0	98.5
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Material description

No 31 - 36 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R007  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	14/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:14
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	37	38	39	40	41	42
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	2.01	2.00	2.02	1.98	2.04
Field moisture content	%	21.9	22.1	18.2	21.1	17.9

### Test procedure AS 1289.5.7.1

Test No	37	38	39	40	41	42
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.00	2.01	2.02	1.99	2.06
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	24.0	24.5	18.0	20.5	20.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.5% dry	0.0%	0.5% wet	2.0% dry	1.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	100.0	99.5	100.0	100.0	99.0	99.5
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### Material description

No 37 - 42 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R008  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	15/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:21
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	43	44	45	46	47	48	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	2.03	2.07	2.16	2.14	1.88	1.92
Field moisture content	%	19.5	19.1	17.9	19.2	18.3	23.1

### Test procedure AS 1289.5.7.1

Test No	43	44	45	46	47	48	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.05	2.09	2.18	2.15	1.89	1.92
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	
Optimum Moisture Content	%	21.5	20.5	20.0	22.0	20.5	25.5

Moisture Variation From Optimum Moisture Content	1.5% dry	1.0% dry	2.0% dry	2.5% dry	2.0% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	99.0	99.0	99.0	99.5	99.5	100.0
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### Material description

No 43 - 48 Clay Fill
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AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909  
 Accredited for compliance with  
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R009  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	16/05/24
Location	CLYDE NORTH	Checked by	JHF

<b>Feature</b>	<b>EARTHWORKS</b>	<b>Layer thickness</b>	200 mm	<b>Time:</b> 11:05
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	49	50	51	52	53	54	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	2.12	2.10	2.08	2.03	1.97	2.00
Field moisture content	%	20.1	19.6	18.5	19.6	20.1	17.6

### Test procedure AS 1289.5.7.1

Test No	49	50	51	52	53	54	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.13	2.11	2.11	2.03	1.98	2.01
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	22.0	22.0	20.5	19.5	22.5	19.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.0% dry	0.5% wet	2.0% dry	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	99.5	99.5	98.5	100.0	99.5	99.5
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### Material description

No 49 - 54 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R010  
 Date Issued 07/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	17/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:13
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	55	56	57	58	59	60	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m <sup>3</sup>	2.01	2.01	1.97	1.93	1.95	2.00
Field moisture content	%	14.3	14.6	15.4	14.8	15.5	14.9

Test procedure AS 1289.5.7.1

Test No	55	56	57	58	59	60	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m <sup>3</sup>	2.01	2.04	1.99	1.96	1.99	2.02
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	14.5	15.0	17.5	17.0	17.5	17.0

Moisture Variation From Optimum Moisture Content	0.0%	0.0%	2.0% dry	2.0% dry	2.0% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	100.0	98.5	99.5	98.5	98.0	98.5
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Material description

No 55 - 60 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R011  
 Date Issued 11/06/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	20/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:21
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	61	62	63	64	65	66
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m <sup>3</sup>	2.01	2.02	1.93	1.96	2.09
Field moisture content	%	17.7	17.6	16.8	18.1	17.7

Test procedure AS 1289.5.7.1

Test No	61	62	63	64	65	66
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	2.04	2.07	1.94	2.00	2.10
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	20.0	20.0	18.5	19.5	18.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	1.5% dry	1.5% dry	0.0%	2.0% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.5	97.0	99.5	98.5	99.5	100.0
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Material description

No 61 - 66 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry



# COMPACTION ASSESSMENT

Job No 24276  
 Report No 24276/R012  
 Date Issued 20/07/24

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	CV
Project	SMITHS LANE - STAGE 27	Date tested	14/05/24
Location	CLYDE NORTH	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:29
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	67	68	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth	mm	175	175	-	-	-
Field wet density	t/m <sup>3</sup>	1.97	2.02	-	-	-
Field moisture content	%	19.7	18.6	-	-	-

### Test procedure AS 1289.5.7.1

Test No	67	68	-	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	-	-	-
Percent of oversize material	wet	0	0	-	-	-
Peak Converted Wet Density	t/m <sup>3</sup>	2.01	2.03	-	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	20.0	21.0	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	2.0% dry	-	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio ( R <sub>HD</sub> )	%	98.0	99.5	-	-	-
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### Material description

No 67 - 68 Clay Fill
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